

What is claimed is:

1. An intravascular catheter device comprising:
an elongate catheter body having a proximal end and having a distal end;
5 an exterior deployment balloon having a thermally activated surface,
located proximate said distal end of said catheter body;
an interior deployment balloon located inside said exterior deployment
balloon;
said interior balloon and said exterior balloon together forming and
10 defining a drug reservoir between the opposed surfaces of said balloons;
a plurality of drug release apertures proximate said thermally activated
surface communicating with said drug reservoir;
a fluid supply lumen in said catheter body coupled to said interior
deployment balloon for inflating said interior deployment balloon to expand it
15 and to pressurize the drug in said reservoir to assist in delivering the drug.
2. The device of claim 1 further including a drug selected from the group
comprising:
20 Rapamycin, and Rapamycin analogs, Taxol/Taxan, Actinomycin D, antisense
dexamethasone, Angiopeptin Batimistat, Translast, Halofuginon, nicotine,
heparin,
- 25 3. The device of claim 1 wherein said thermally activated surface includes;
a plurality of shape memory plastic spines/tines having a first retracted position
corresponding to a first temperature, and a second deployed position.
- 30 4. The device of claim 3 where in said drug release apertures are uncovered
by said spines when said spines are in said second deployed position.

5. An intravascular catheter device comprising:
an elongate catheter body having a proximal end and having a distal end;
a deployment balloon having a treatment surface located proximate said
distal end;
- 5 said treatment surface having a plurality of spines extending from said
surface;
a retractable sheath over said catheter body adapted for reciprocating
motion from a first covered position covering said treatment surface to a second
retracted position uncovering said treatment surface;
- 10 a fluid supply lumen in said catheter body coupled to said deployment
balloon for inflating said deployment balloon to expand it into contact with said
vessel wall.
6. The device of claim 5 wherein:
- 15 said deployment surface includes an array of shape metal alloy spines,
operated in the super elastic state to deploy upon the retraction of said sheath to
said second retracted position.
7. The device of 6 wherein:
- 20 said spines retract toward said deployment balloon upon the
advancement of sheath toward a first position.
8. A method of treating a vessel comprising the steps:
- 25 deploying a balloon into the vessel of the type having a micro spine
surface;
inflating said balloon driving said micro spine surface into contact with
the vessel wall.